

Predictive Modeling of the CDRA 4BMS  
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Fully predictive models of the Four Bed Molecular Sieve of the Carbon Dioxide Removal Assembly on the International Space Station are being developed. This virtual laboratory will be used to help reduce mass, power, and volume requirements for future missions. In this paper we describe current and planned modeling developments in the area of carbon dioxide removal to support future crewed Mars missions as well as the resolution of anomalies observed in the ISS CDRA.